

Panel Discussion: Training and Homeland Security

Since the 9/11 terrorist attacks, the NIEHS WETP and its awardee community have been deeply involved in efforts to protect workers who may be called upon to prepare or respond to a WMD incident. These efforts have focused on ways to improve awareness and response training for worker populations, particularly those whose roles have not traditionally required significant Hazwoper training in the past, as specified under OSHA's 1910.120 standard.

Since the launch of the war on terrorism and the subsequent creation of a Homeland Security Department, much has been written about the nature of workplace security and how the risks facing workers have changed since 9/11, particularly given the potential for terrorists to access hazardous chemicals and pathogens whose release could impact thousands of workers and residents in nearby communities. This heightened focus on homeland security has raised several questions regarding the level of preparedness among emergency responders, skilled support personnel, hospital employees, chemical plant and nuclear workers, as well as utility and infrastructure workers who are likely to be called upon to respond to incidents involving significant destruction. How do we prepare these workers for such an incident? What type of training do they require? What level of funding is required to achieve the proper level of training? How do we incorporate this training at actual disaster sites, and how best to communicate the risks to an increasingly diverse workforce? These and other questions were examined by invited speakers and participating awardees during a Homeland Security panel at the December 2003 awardee meeting.

Dr. Bruce Lippy, director of the National Clearinghouse for Worker Safety and Health Training, opened the panel with an introduction of each speaker and a brief recap of what NIEHS WETP and its awardee network have done over the past two years to ensure that workers are trained to respond safely to terrorist actions.

[\[Link to Lippy presentation\]](#)

Public Health Strategies to Protect Workers During Acts of Terrorism

Rebecca Head, Director of Public Health Preparedness for the Washtenaw County Public Health Department (WCPHD) in Michigan, opened the panel discussion by addressing the development of worker protection strategies through education and training. Dr. Head has worked for Washtenaw County Government since 1986. She is also a member of Underwriters Laboratories Inc.'s Environmental and Public Health (EPH) Council and is active in the American Public Health Association's Environment Section. She has a bachelor's degree in education, a master's in environmental health services and a doctorate in toxicology, all from the University of Michigan.

Dr. Head emphasized that the role of the public health worker has increased, broadening into an 'all-hazards' approach, involving an active role in both man-made and natural disasters. This increased role brings challenges that the public health community must

address through increased education and training, as well as improved communication and collaboration with and among local, regional, and state organizations, local hospitals, and the community.

With regard to education and training, Dr. Head pointed out that while a great deal of training is now offered on how to teach public health workers to respond to acts of terrorism, not enough specific training exists on how to teach these workers to protect themselves. The central question therefore becomes: What are the next steps? How can organizations such as NIEHS, CDC/NIOSH, and the EPA promote and expand the existing worker training model? Partnerships with CDC-funded Academic Centers for Public Health Preparedness (<http://www.asph.org/phprc/index.cfm#ACPHP>), or current HRSA-funded Training Centers (<http://bhpr.hrsa.gov/publichealth/phtc.htm>) were mentioned as possible vehicles for collaboration. In addition, collaboration with local and state public health agencies can be valuable as a mechanism to explore joint ventures.

Given the numerous challenges presented by today's 'all-hazards' environment, Dr. Head underscored how important it is to recognize your organization's limitations, and adapt to them, as it is impossible to have all the resources necessary to prepare for every potential emergency. Partnerships and mutual aid agreements, as well as joint exercises and training greatly help to leverage available resources, raise awareness, and expand the number of workers with access to current training opportunities.

[\[Link to Rebecca Head presentation\]](#)

Chemical Terrorism: The View from the U.S. Chemical Safety and Hazard Investigation Board (CSB)

Dr. Gerald V. Poje has served as a Board Member of the U.S. Chemical Safety and Hazard Investigation Board since its inception in November 1997. The primary mission of the CSB is to investigate and promote the prevention of major chemical accidents at fixed facilities. He also has been the Board's Executive/Administrator responsible for personnel administration, conduct of work, and representing the CSB before the Congress and the Executive Branch. Prior to joining the Board, Dr. Poje directed international programs and public health for the National Institute of Environmental Health Sciences, focusing on issues of disease prevention, health promotion and environmental justice.

In his presentation to WETP awardees, Dr. Poje addressed the risks posed by terrorist incidents at chemical plants and what is being done at a federal interagency level to address the risks. To frame the nature of U.S. chemical accidents, Poje explained that U.S. chemical firms incur approximately 3-5 billion dollars per year in total accident losses. Insurance firms pay out about 1 billion to these firms for such losses. It is difficult to assess the total number of incidents that actually occur per year due to "data holes" at various levels, and differences in reporting requirements that can result in under-reporting.

Using examples from several accident investigations conducted by the CSB over the past several years, Dr. Poje emphasized the need for organizations to focus on prevention, even while planning for response and clean-up. Reactive incidents are a national safety problem that can be alleviated through the application of enhanced federal regulatory and non-regulatory programs that address such issues as incident tracking, public access to information, and process-specific conditions for the storage, handling, and use of chemicals.

Poje pointed out that the call for primary prevention programs is not new. The Inherently Safer Approach, first proposed by Kletz in 1978, advocates eliminating the hazard from the chemical process rather than adding on safety features (or “layers of protection”) to control and manage hazards. For example, limiting the amount of a chemical stored at a facility is an inherently safer approach than storing large, unlimited quantities of a chemical at a facility, which might require instituting several layers of protection (emergency response systems, physical protections) to reduce the risk of a hazard.

Poje underscored the need to push this inherently safer approach as the Administration and the chemical industry debate the need for federal regulations to enforce and enhance security measures at chemical plants. More broadly, we need to advocate this approach in an effort to elevate the realities of what is happening in order to better develop the worker training skills advocated by the Program and its awardee network.

[\[Link to Gerald Poje presentation\]](#)

Emergency Response and Protecting Infrastructure Workers: Training At-Risk Sectors in Emergency Response

Paul Penn, EnMagine Inc. (www.hazmatforhealthcare.org), a long-time Hazmat trainer from California, discussed the impact and changing nature of emergency responder training on a number of populations at risk and how they should be trained to deal with terrorist attacks. His presentation focused specifically on the health care and hospital sector and its interface with the emergency responder community.

Mr. Penn provided a broad summary of significant changes in incident management and response on the national level that have occurred or will occur as a result of Bush Administration policies and directives. The primary driver of this change lies with Homeland Security Presidential Directive-5 (HSPD-5; <http://www.whitehouse.gov/news/releases/2003/02/20030228-9.html>), signed in February of 2003. HSPD-5 directed the creation of a single, comprehensive national incident management system (NIMS). The NIMS is intended “include a core set of concepts, principles, terminology, and technologies,” including training, multi-agency coordination, and qualifications and certifications. The creation of this a new, comprehensive National Response Plan has been a complex undertaking, and one that has involved the input of numerous agencies and organizations involved in incident management and response.

Turning to the issue of training for healthcare professionals, Mr. Penn described a tiered approach that is supported through his own training organization. At the top is the gatekeeper and technician, for a total of 40 hours of training. At the bottom of the tier is hazard communication, which is provided to all employees (see Penn presentation to see the complete tier diagram). The level and the nature of training depends upon the worker's role and his/her task(s) in the event of a potential incident.

In response to the central question, 'What do we want to teach people?' Penn referred to three training elements for healthcare professionals:

1. SIN: Safety, Isolate the Scene and Deny Entry, and Notify (Defensive Actions)
2. CIA: Command, Identify, and Develop Action Plans
3. PCP: PPE, Control, Contain, Cleanup, and Protective Actions; and
4. DDD: Decon, Dispose, Document

In summary, the biggest challenges to training for this industry are twofold: enforcing the respiratory protection standard and finding time away from work for training. Both of these are not insurmountable; they are institutional choices that can be examined and addressed.

[\[Link to Paul Penn presentation\]](#)

Question and Answer Period

Participants were invited to ask questions of the Homeland Security panel following their presentations.

A question was raised as to what triggers were being discussed as far as enacting a public health response in cases when workers are exhibiting disease symptoms or when there is a biological incident at a manufacturing plant, for example. Rebecca Head admitted that there was no good answer to the question, as it depends upon the severity of the situation and/or the worker/patient in question. Having the right connections with local public health organizations, however, would be helpful, as it provides an established communications channel should such an event occur.

Another issue that was raised was the need for better 'rights-to-know' and improved information dissemination to workers and the community. A representative from Xavier mentioned how they had written a letter to the EPA requesting information on the risks facing their community from a local petrochemical facility. A response was never received. Further inquiries led them to be told that this information is not being released due to security concerns. What is the security reason behind keeping information from communities that may be essential in saving their lives in the event of a disaster?